



BILLING CODE 6560-50-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 49, 60, 75, 89, 92, 94, 761, and 1065**

**[EPA-HQ-OPPT-2010-0518; FRL-8880-4]**

**RIN 2070-AJ51**

**Incorporation of Revised ASTM Standards that Provide Flexibility in the Use of Alternatives to Mercury-Containing Industrial Thermometers**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is promulgating a final rule to incorporate the most recent versions of ASTM International (ASTM) standards into EPA regulations that provide flexibility to use alternatives to mercury-containing industrial thermometers. This final rule will allow the use of such alternatives in certain field and laboratory applications previously impermissible as part of compliance with EPA regulations. EPA believes the older embedded ASTM standards unnecessarily impede the use of effective, comparable, and available alternatives to mercury-containing industrial thermometers. Due to mercury's high toxicity, EPA seeks to reduce potential mercury exposures to humans and the environment by reducing the overall use of mercury-containing products, including mercury-containing industrial thermometers.

**DATES:** This final rule is effective *[insert date 60 days after date of publication in the Federal Register]*. The incorporation by reference of certain publications listed in the final rule is approved by the Director of the Federal Register as of *[insert date 60 days*

**11T-0902**

*after date of publication in the **Federal Register**].*

**ADDRESSES:** EPA has established a docket for this action under docket identification (ID) number EPA-HQ-OPPT-2010-0518. All documents in the docket are listed in the docket index available at <http://www.regulations.gov>. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available in the electronic docket at <http://www.regulations.gov>, or, if only available in hard copy, at the OPPT Docket.

The OPPT Docket is located in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566-1744, and the telephone number for the OPPT Docket is (202) 566-0280.

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**FOR FURTHER INFORMATION CONTACT:** *For technical information contact:*

Robert Courtnage, National Program Chemicals Division (7404T ), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (202) 566-1081; email address: [courtnage.robert@epa.gov](mailto:courtnage.robert@epa.gov).

*For general information contact:* The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554-1404; email address: *TSCA-Hotline@epa.gov*.

## **SUPPLEMENTARY INFORMATION:**

### **I. Does this Action Apply to Me?**

You may be potentially affected by this action if you use mercury-containing industrial thermometers in laboratories, for field analysis (e.g., including usage at petroleum storage or refining facilities), or for other industrial applications. Potentially affected entities may include, but are not limited to:

- Testing Laboratories (NAICS code 541380).
- Petroleum Refineries (NAICS code 324110).
- Analytical Laboratory Instrument Manufacturing (NAICS code 334516).

This listing is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in this unit could also be affected. The North American Industrial Classification System (NAICS) codes have been provided to assist you and others in determining whether this action might apply to certain entities. If you have any questions regarding the applicability of this action to a particular entity, consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

### **II. Background**

#### *A. What Action is the Agency Taking?*

The Agency is promulgating a final rule, which was proposed in the **Federal Register** issue of January 12, 2011 (76 FR 2056) (FRL-8846-6), to incorporate into EPA

regulations revised ASTM standards that provide flexibility to the regulated community to use alternatives to mercury-containing industrial thermometers. As part of the Agency's mercury reduction effort and pursuant to the "EPA Roadmap for Mercury, Chapter 2: Addressing Mercury Uses in Products and Processes," available at <http://www.epa.gov/hg/roadmap.htm>, EPA is removing unnecessary requirements to use mercury-containing industrial thermometers where viable and comparable non-mercury substitutes exist in the market. EPA is specifically updating regulations to incorporate three ASTM standards (D5865-10, D445-09, and D93-09) that allow for the use of alternatives to mercury-containing industrial thermometers. The Agency is updating these ASTM standards where they are referenced in regulations pursuant to the Clean Air Act (CAA) and the Toxic Substances Control Act (TSCA) (certain sections of 40 CFR parts 49, 60, 75, 89, 92, 94, 761, and 1065). One of the incorporated ASTM standards (D5865-10) requires the use of a mercury-free device while the other two ASTM standards (D445-09 and D93-09) provide the flexibility to use alternatives to mercury-containing industrial thermometers, but do not require their use. EPA is amending Agency regulations to allow the use of the updated ASTM standard D5865-10 and the previous ASTM standards, D5856-01a, D5856-03a, and D5856-04 so that flexibility is given to use mercury-free thermometers, but not required. Although commenters on the proposed rule stated that EPA should not allow the flexibility to use previous versions of ASTM D-5865 so that mercury-free thermometers would be required, the intent of this final rule is to provide the flexibility to use mercury-containing industrial thermometers while not specifically requiring their use.

Mercury exposures can harm the brain, heart, kidneys, lungs, and immune system.

Most human exposure to mercury is through the consumption of fish containing methylmercury. Exposure to methylmercury through ingestion can harm the normal development of the nervous system, resulting in learning disabilities. Elemental mercury and other forms of mercury from industrial sources are deposited from the air and are converted into methylmercury. Mercury exposure can also occur by inhalation of elemental mercury from breakage or improper disposal of mercury-containing products such as mercury-containing industrial thermometers. Inhalation exposure of elemental mercury can lead to neurotoxic and developmental neurotoxic effects.

The National Institute of Standards and Technology (NIST), a U.S. government agency devoted to advancing measurement science, standards, and technology, believes there are no fundamental barriers to the replacement of mercury-containing industrial thermometers. Supporting this assertion, on March 1, 2011, NIST discontinued the calibration of mercury-containing industrial thermometers. By discontinuing these calibrations, NIST supports their professional opinion that mercury-containing industrial thermometers are no longer the highest standard for accurate and reproducible temperature measurement. Although previously perceived as superior in performance, mercury-containing industrial thermometers have readily available and comparable alternatives such as platinum resistance thermometers, thermistors, thermocouples, and portable electronic thermometers (PETs).

Although a start, the ASTM standards (D5865-10, D445-09, and D93-09) addressed in this final rule comprise only a small percentage of the ASTM standards referenced within EPA regulations that require the use of mercury-containing industrial thermometers. Further revisions to these other relevant ASTM standards would be

necessary before EPA could provide more comprehensive flexibility to the regulated community. To facilitate the use of mercury alternatives, EPA encourages ASTM, in the spirit of pollution prevention, to expeditiously review and revise standards that require the use of mercury-containing industrial thermometers, particularly those currently embedded in EPA regulations. More specifically, EPA encourages ASTM committee chairs to support EPA in making committee members aware of committee standards that require the use of mercury-containing industrial thermometers.

In addition to EPA regulations that reference ASTM standards, certain EPA regulations directly require the use of mercury-containing industrial thermometers. Most of these regulations are pursuant to CAA; EPA's Office of Air and Radiation intends to address them through a separate rulemaking. For ASTM standards contained within State implementation plan (SIP) approvals, the Agency would need to address each ASTM standard separately after consultation with the States. Additionally, analytical methods required under the Resource Conservation and Recovery Act (RCRA) that use mercury-containing industrial thermometers as a Method Defined Parameter (MDP) were not addressed in the proposed rule and will not be addressed in this final rule. EPA plans to make revisions to MDPs that require the use of mercury-containing industrial thermometers at a future date. While the Office of Solid Waste and Emergency Response (OSWER) Methods Innovation Rule (MIR), published in the **Federal Register** issue of June 14, 2005 (70 FR 34538) (FRL-7916-1), allows flexibility in RCRA-related sampling and analysis, the MIR does not currently allow for flexibility for test methods that have MDPs. However, methods that are not considered MDPs (i.e., methods not required by RCRA regulations) allow the use of alternative equipment such as non-mercury

thermometers as long as users can demonstrate that data quality objectives can be met without compromising data quality. EPA believes that users should identify the appropriate methods for a specific project before sampling and analysis begins and recommends that they consult with their regulating authority during identification of performance goals and the selection of appropriate methods before using alternative equipment (e.g., non-mercury thermometer).

For more information on MIR and RCRA's SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," please visit the SW-846 website at <http://www.epa.gov/osw/hazard/testmethods/sw846>.

*B. What is the Agency's Authority for Taking this Action?*

This action is being taken under the Agency's authority pursuant to CAA (42 U.S.C. 7401 to 7671q) and TSCA (15 U.S.C. 2601 to 2692).

**III. Public Comments**

*A. General Comments*

The comments EPA received on the proposed rule were overwhelmingly supportive of incorporating the revised ASTM standards D5865-10, D445-09, and D93-09. Five public comments were received. Commenters noted that temperature measurement in laboratories and in the field would not adversely be affected by the proposed amendments. One commenter also correctly noted that several States have already banned or in some way restricted the sale of mercury-containing industrial thermometers.

Other commenters questioned EPA's reasoning for the action, citing compact fluorescent lights as a greater source of mercury than thermometers. EPA believes that

there is justification for allowing flexibility to use alternatives to mercury-containing industrial thermometers where comparable and available substitutes exist. There may be significant cost savings for making the switch to mercury-free thermometers considering the expense incurred to properly clean up a mercury spill following the breakage of a mercury-containing industrial thermometer. Mercury in fluorescent lights, however, is outside the scope of this rulemaking.

*B. Responses to EPA's Questions Posed in the Proposed Rule*

1. *How can EPA provide additional flexibility in the use of mercury-free thermometers to comply with the Agency's relevant regulations?* Commenters suggested that EPA incorporate voluntary consensus standards (including ASTM standards) by reference so that future updates and amendments to such standards would not require a separate rulemaking by EPA for incorporation. One commenter also stated that by incorporating such ASTM standards EPA should require the use of the least toxic alternatives allowed under such standards.

Where ASTM standards are mentioned in EPA regulations, they are incorporated by reference. But that incorporation does not mean that updates to those standards are automatically incorporated. To incorporate updates to standards in EPA regulations, EPA must follow the appropriate procedures of the Administrative Procedures Act to amend the existing regulations. EPA believes that notice-and-comment rulemaking, such as was used for this final rule, provides the public with the ability to thoroughly review updated voluntary consensus standards and provide comments before they are incorporated into EPA regulations.

In the spirit of the National Technology Transfer and Advancement Act



(NTTAA), EPA has often identified which industrial thermometers must be used for specific functions by referencing ASTM standards in its regulations. EPA believes the best way to remove unnecessary requirements to use mercury-containing industrial thermometers is for ASTM committees to expeditiously bring up for revision ASTM standards that unnecessarily require mercury-containing industrial thermometers in situations where effective, comparable, and available mercury-free alternatives exist. EPA would then review such ASTM standard revisions and incorporate the updated standards that allow mercury-free alternatives into EPA regulations that reference these standards. EPA would do this through notice-and-comment rulemaking.

*2. Are requirements to use mercury-containing thermometers necessary for performance reasons or should flexibility be provided in most, if not all, measurement applications?* Commenters stated that thermometry requirements should be performance based. Commenters also noted that flexibility for the use of non-mercury alternatives should be allowed and that where effective non-mercury alternatives exist they should be required to be used to the maximum extent possible.

Another commenter stated that many State agencies have actively promoted the elimination of usage of mercury-containing industrial thermometers in State laboratories and have not since experienced reduced performance in temperature measurement. As a result, the commenter asserts that State agencies have found that it is technologically possible to eliminate the use of mercury-containing industrial thermometers in most, if not all, applications. The commenter further stated that those State agencies experiences are supported by NIST's statement that there are no fundamental barriers to the replacement of mercury-containing industrial thermometers and NIST's discontinuation

of the calibration of mercury-containing thermometers. It was the opinion of this commenter that the decision by NIST to discontinue the calibration of mercury-containing thermometers will facilitate the transition to mercury-free alternatives in laboratories where annual mercury-containing industrial thermometer re-calibration requirements have proven to be an impediment to the complete removal of mercury measurement devices. The same commenter went on to say that the use of digital alternatives to mercury-containing industrial thermometers provided the benefit of electronic recordkeeping processes that could prevent human error in recording measurements.

EPA agrees with commenters that the thermometry requirements should be performance based. EPA also agrees that flexibility for mercury-containing industrial thermometer alternatives should be allowed, especially when effective, comparable, and available mercury alternatives are available. EPA also agrees with the commenter that where effective non-mercury alternatives exist, there may be justification for requiring the use of a mercury-free device considering the pollution prevention benefits. However, EPA has not at this time decided whether to pursue requirements for use of mercury-free devices. In the spirit of NTTAA, EPA encourages ASTM to take this into consideration when revising its relevant standards. EPA also agrees with the noted benefits of digital thermometers and that NIST's recent decision will help expedite the transition of laboratories to non-mercury-containing industrial thermometers.

*3. Does the use of data-loggers for temperature measurement in autoclaves provide a viable alternative to the use of mercury-containing thermometers?* Commenters supported the use of data-loggers for temperature measurement in autoclaves to provide a

viable alternative to mercury-containing industrial thermometers. Commenters also noted that substituting the use of mercury-containing industrial thermometers in this application, although initially more expensive, avoids the potential for thermometer breakage inside of an autoclave, which could result in expensive cleanup and disposal costs, and overall would represent a significant lifecycle cost savings. One commenter stated that a vaporized mercury release from a resulting spill in an operating autoclave could be potentially dangerous to employees unaware of the thermometer breakage or mercury spill. Two commenters also stated that the ability of data-loggers to track temperature over time within the autoclaves provides assurance of adequate temperatures for a sufficient period of time to ensure proper sterilization, while avoiding potential degradation of microbiological media. EPA agrees with the commenters that the use of data-loggers in autoclaves provides further support that there are viable alternatives to the use of mercury-containing industrial thermometers.

4. *What else can EPA do to help expedite the use of alternatives to mercury-containing thermometers where feasible, comparable, and available?* Commenters responded that EPA should continue to encourage ASTM to evaluate expeditiously its standards that require the use of mercury-containing industrial thermometers and that EPA staff should continue to engage in the ASTM standard updating process as committee members. Commenters also responded that EPA should provide the States and ASTM assistance in evaluating mercury alternatives as well as publicize and make available the outcomes of these performance-based studies. The commenters further responded that EPA should clarify to the public, where possible, applications where mercury-containing industrial thermometers are no longer necessary for accurate and

reproducible temperature measurement. Commenters also encouraged EPA to continue to work with NIST to facilitate a switchover to non-mercury alternatives. Finally, one commenter asked that EPA broaden its efforts across its programs to identify additional requirements, including other CAA and RCRA requirements, where mercury-containing industrial thermometers are referenced directly and provide more comprehensive flexibility under these requirements.

EPA agrees with the commenters on their request that the Agency continue to encourage ASTM to evaluate its standards that require the use of mercury-containing industrial thermometers, including informing the public on what thermometer applications no longer require mercury devices for accurate and reproducible measurement. EPA will continue to work with the States and ASTM to evaluate mercury alternatives and to make such evaluations available to the public. EPA also agrees to evaluate the additional requirements under CAA and RCRA to use mercury-containing industrial thermometers and provide flexibility where possible.

#### **IV. Changes Based on Incorporation by Reference Requirements**

##### *A. Removal of Amendments to 40 CFR Parts 63 and 86*

In a separate document published in the **Federal Register** issue of March 21, 2011 (76 FR 15554) (FRL-9273-5), EPA finalized an amendment to § 63.14 and to Table 6 in subpart DDDDD of 40 CFR part 63, that removed the ASTM standard D5865-03a and replaced it with the ASTM standard D5865-10a. Therefore, the amendments to 40 CFR part 63 published in the proposed rule for this document are no longer necessary.

Additionally, at this time EPA does not plan to amend 40 CFR part 86 due to issues related to the Office of the Federal Register's (OFR) requirements for

incorporation by reference. The incorporation by reference requirements to include the addition of ASTM standards D93-09 and D445-09 would require amendments to 40 CFR part 86 not initially targeted by this rulemaking. Those amendments would significantly expand the scope of the rulemaking beyond issues related to the flexible use of mercury-free thermometers. EPA plans in the future to address the amendments proposed for 40 CFR part 86 and OFR's incorporation by reference requirements for 40 CFR part 86

#### *B. Formatting Changes to Final Rule*

The regulatory text of this final rule is significantly changed in appearance from the proposed rule. These changes in the regulatory text were made in order to comply with the Office of the Federal Register's (OFR) incorporation by reference requirements found in 1 CFR part 51. Approval by the OFR Director was based on meeting the requirements for new approvals, 17 ASTM and ISO standards and 1 OECD guideline, which are used to perform the testing required by this final rule, and changing the format for the existing centralized incorporation by reference sections affected by this final rule. These formatting changes in the regulatory text are non-substantive and do not change the meaning of the regulatory amendments originally proposed.

### **V. Statutory and Executive Order Reviews**

#### *A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This is not a "significant regulatory action" under Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011).

#### *B. Paperwork Reduction Act*

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*). Burden is defined at 5 CFR 1320.3(b). An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information that requires the Office of Management and Budget (OMB) approval under PRA, unless it has been approved by OMB and displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the **Federal Register**, are listed in 40 CFR part 9, and included on the related collection instrument, or form, if applicable.

*C. Regulatory Flexibility Act*

Pursuant to section 605(b) of RFA (5 U.S.C. 601 *et seq.*), I hereby certify that this final rule does not have a significant economic impact on a substantial number of small entities. Under RFA, small entity is defined as:

1. A small business that is further defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201 using either the number of employees or annual receipts for the businesses affected by the regulation, which for this final rule includes any business that is primarily engaged in the use of mercury-containing industrial thermometers in laboratories, for field analysis (e.g., including usage at petroleum storage or refining facilities), or for other industrial applications (see also Unit I. and the applicable provisions in the regulations affected by this final rule).

2. A small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000.

3. A small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

In making this determination, the impact of concern is any significant adverse economic impact on small entities because the primary purpose of regulatory flexibility analysis is to identify and address regulatory alternatives “which minimize any significant economic impact of the rule on small entities.” 5 U.S.C. 603 and 604. Thus, an agency may certify under RFA when the rule relieves regulatory burden, or otherwise has no expected economic impact on small entities subject to the rule.

The revisions in this final rule will provide flexibility to affected entities by allowing the use of mercury-free thermometers, without mandating their use. It does not otherwise amend or impose any other requirements. As such, this final rule will not have any adverse economic impact on any entities, large or small.

*D. Unfunded Mandates Reform Act*

This final rule contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (2 U.S.C. 1531-1538) for State, local, or Tribal governments or the private sector. The action imposes no enforceable duty on any State, local, or Tribal governments or the private sector and does not contain any unfunded mandate, or otherwise have any effect on small governments subject to the requirements of sections 202, 203, 204, or 205 of UMRA.

*E. Executive Order 13132: Federalism*

This action will not have federalism implications because it is not expected to have a substantial direct effect on States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). Thus, Executive Order 13132 does not apply to this action.

*F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments*

This action will not have Tribal implications because it is not expected to have substantial direct effects on Indian Tribes, will not significantly or uniquely affect the communities of Indian Tribal governments, and does not involve or impose any requirements that affect Indian Tribes, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). Accordingly, the requirements of Executive Order 13175 do not apply to this action.

*G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. This action is not subject to Executive Order 13045 because it does not establish an environmental standard intended to mitigate health or safety risks, nor is it an “economically significant regulatory action” as defined by Executive Order 12866.

*H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use*

This action is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not a significant regulatory action under Executive Order 12866.

*I. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note), directs EPA to use voluntary consensus standards in its



regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

ASTM standards constitute voluntary consensus standards and, as such, NTTAA directly applies to this final rule. With this final rule, EPA is adding to existing EPA regulations the most current versions of applicable ASTM standards that allow flexibility in the use of mercury-containing industrial thermometers and in the spirit of NTTAA plans to work closely with ASTM to address the remaining standards referenced within EPA regulations that require the use of mercury-containing thermometers.

*J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

This action does not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. Therefore, this action does not involve special consideration of environmental justice-related issues as specified in Executive Order 12898 (59 FR 7629, February 16, 1994).

**VI. Congressional Review Act**

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report to each House of the Congress and the Comptroller General of the United States. EPA

will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This rule is not a “major rule” as defined by 5 U.S.C. 804(2).

**List of Subjects in 40 CFR Parts 49, 60, 75, 89, 92, 94, 761, and 1065**

Environmental protection, Incorporation by reference, Mercury, Temperature measurement, Thermometers.

Dated: January 3, 2012.

Lisa P. Jackson,

*Administrator.*

Therefore, 40 CFR chapter I is amended as follows:

**PART 49--[AMENDED]**

1. The authority citation for part 49 continues to read as follows:

**Authority:** 42 U.S.C. 7401, *et seq.*

2. In § 49.123, revise the definition of “Heat input” in paragraph (a) and add paragraph (e)(1)(xxi) to read as follows:

**§ 49.123 General provisions.**

(a) \* \* \*

*Heat input* means the total gross calorific value [where gross calorific value is measured by ASTM Method D240-02, D1826-94 (Reapproved 2003), D5865-04, D5865-10, or E711-87 (Reapproved 2004) (incorporated by reference, see § 49.123(e))] of all fuels burned.

\* \* \* \* \*

(e) \* \* \*

(1) \* \* \*

(xxi) ASTM D5865-10 (Approved January 1, 2010), Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for § 49.123(a).

**PART 60--[AMENDED]**

3. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

4. In § 60.17, add paragraph (a)(94) to read as follows:

**§ 60.17 Incorporations by reference.**

\* \* \* \* \*

(a) \* \* \*

(94) ASTM D5865-10 (Approved January 1, 2010), Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for § 60.45(f)(5)(ii), § 60.46(c)(2), and appendix A-7 to part 60, Method 19, section 12.5.2.1.3.

\* \* \* \* \*

5. The authority citation for the appendixes to part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401-7601.

6. In Method 19 of appendix A-7 to part 60, revise section 12.5.2.1.3 to read as follows:

**Appendix A-7 to Part 60--Test Methods 19 through 25E**

\* \* \* \* \*

Method 19--Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxide Emission Rates

\* \* \* \* \*

12.5.2.1.3 Gross Sample Analysis. Use ASTM D 2013-72 or 86 to prepare the sample, ASTM D 3177- 75 or 89 or ASTM D 4239-85, 94, or 97 to determine sulfur content (%S), ASTM D 3173-73 or 87 to determine moisture content, and ASTM D 2015-77 (Reapproved 1978) or 96, D 3286-85 or 96, or D 5865-98 or 10 to determine gross calorific value (GCV) (all standards cited are incorporated by reference--see § 60.17 for acceptable versions of the standards) on a dry basis for each gross sample.

\* \* \* \* \*

**PART 75--[AMENDED]**

7. The authority citation for part 75 continues to read as follows:

**Authority:** 42 U.S.C. 7601 and 7651K, and 7651K note.

8. In to § 75.6, add paragraph (a)(50) to read as follows:

**§ 75.6 Incorporation by reference.**

\* \* \* \* \*

(a) \* \* \*

(50) ASTM D5865-10 (Approved January 1, 2010), Standard Test Method for Gross Calorific Value of Coal and Coke, for appendices A, D, and F of this part.

\* \* \* \* \*

9. In appendix A to part 75, revise paragraph (c) of section 2.1.1.1 to read as follows:

**Appendix A to Part 75--Specifications and Test Procedures**

\* \* \* \* \*

**2.1.1.1 Maximum Potential Concentration**

\* \* \* \* \*

(c) When performing fuel sampling to determine the MPC, use ASTM Methods: ASTM D129-00, ASTM D240-00, ASTM D1552-01, ASTM D2622-98, ASTM D3176-89 (Reapproved 2002), ASTM D3177-02 (Reapproved 2007), ASTM D4239-02, ASTM D4294-98, ASTM D5865-01a, or ASTM D5865-10 (all incorporated by reference under § 75.6).

\* \* \* \* \*

10. In appendix D to part 75, revise section 2.2.7 to read as follows:

**Appendix D to Part 75--Optional SO<sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units**

\* \* \* \* \*

2.2.7 Analyze oil samples to determine the heat content of the fuel. Determine oil heat content in accordance with ASTM D240-00, ASTM D4809-00, ASTM D5865- 01a, or D5865-10 (all incorporated by reference under § 75.6) or any other procedures listed in section 5.5 of appendix F of this part. Alternatively, the oil samples may be analyzed for heat content by any consensus standard method prescribed for the affected unit under part 60 of this chapter.

\* \* \* \* \*

11. In appendix F to part 75:

- a. Revise section 3.3.6.2.
- b. Revise the expression “GCV<sub>O</sub>” in paragraph (a) of section 5.5.1.
- c. Revise section 5.5.3.2.
- d. Revise the expression “GCV<sub>C</sub>” in section 5.5.3.3.

The revisions read as follows:

**Appendix F to Part 75--Conversion Procedures**

\* \* \* \* \*

3.3.6.2 GCV is the gross calorific value (Btu/lb) of the fuel combusted determined by ASTM D5865-01a or ASTM D5865-10, ASTM D240-00 or ASTM D4809-00, and ASTM D3588-98, ASTM D4891-89 (Reapproved 2006), GPA Standard 2172-96, GPA Standard 2261-00, or ASTM D1826-94 (Reapproved 1998), as applicable. (All of these methods are incorporated by reference under § 75.6.)

\* \* \* \* \*

5.5.1 (a) \* \* \*

GCV<sub>O</sub>= Gross calorific value of oil, as measured by ASTM D240-00, ASTM D5865-01a, ASTM D5865-10, or ASTM D4809-00 for each oil sample under section 2.2 of appendix D to this part, Btu/unit mass (all incorporated by reference under § 75.6).

\* \* \* \* \*

5.5.3.2 All ASTM methods are incorporated by reference under §75.6. Use ASTM D2013-01 for preparation of a daily coal sample and analyze each daily coal sample for gross calorific value using ASTM D5865-01a or ASTM D5865-10. On-line coal analysis may also be used if the on-line analytical instrument has been demonstrated to be equivalent to the applicable ASTM methods under §§ 75.23 and 75.66.

5.5.3.3 \* \* \*

GCV<sub>C</sub>= Gross calorific value of coal sample, as measured by ASTM D3176-89 (Reapproved 2002), ASTM D5865-01a, or ASTM D5865-10, Btu/lb (incorporated by reference under § 75.6).

\* \* \* \* \*

**PART 89--[AMENDED]**

12. The authority citation for part 89 continues to read as follows:

**Authority:** 42 U.S.C. 7401-7671q.

13. Revise § 89.6 to read as follows:

**§ 89.6 Reference materials.**

The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1



CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the **Federal Register** and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742. These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030 or go to

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

In addition, these materials are available from the sources listed below.

(a) *ASTM material*. Copies of these materials may be obtained from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428-2959, or by calling (877) 909-ASTM, or at <http://www.astm.org>.

(1) ASTM D86-97, Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, IBR approved for appendix A to subpart D.

(2) ASTM D93-09 (Approved December 15, 2009), Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, IBR approved for appendix A to subpart D.

(3) ASTM D129-95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for appendix A to subpart D.

(4) ASTM D287-92, Standard Test Method for API Gravity of Crude Petroleum

and Petroleum Products (Hydrometer Method), IBR approved for appendix A to subpart D.

(5) ASTM D445-09 (Approved July 1, 2009), Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (the Calculation of Dynamic Viscosity), IBR approved for appendix A to subpart D.

(6) ASTM D613-95, Standard Test Method for Cetane Number of Diesel Fuel Oil, IBR approved for appendix A to subpart D.

(7) ASTM D1319-98, Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption, IBR approved for appendix A to subpart D.

(8) ASTM D2622-98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry, IBR approved for appendix A to subpart D.

(9) ASTM D5186-96, Standard Test Method for “Determination of the Aromatic Content and Polynuclear Aromatic Content of Diesel Fuels and Aviation Turbine Fuels By Supercritical Fluid Chromatography, IBR approved for appendix A to subpart D.

(10) ASTM E29-93a, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications, IBR approved for §§ 89.120, 89.207, 89.509.

(b) *California Air Resources Board Test Procedure*. The material is from Title 13, California Code of Regulations, Sections 2420-2427, as amended by California Air Resources Board Resolution 92-2 and published in California Air Resources Board mail out #93-42, September 1, 1993. Copies of these materials may be obtained from the

California Air Resources Board, Haagen-Smit Laboratory, 9528 Telstar Ave., El Monte, CA 91731-2908, or by calling (800) 242-4450.

(1) California Regulations for New 1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines, IBR approved for §§ 89.112, 89.119, 89.508.

(2) [Reserved]

(c) *SAE material*. Copies of these materials may be obtained from the Society of Automotive Engineers International, 400 Commonwealth Dr., Warrendale, PA 15096-0001, or by calling (877) 606-7323 (United States and Canada only) or (724) 776-4970 (outside the United States and Canada only), or at <http://www.sae.org>.

(1) SAE J244, June 83, Recommended Practice for Measurement of Intake Air or Exhaust Gas Flow of Diesel Engines, IBR approved for § 89.416.

(2) SAE J1937, November 89, Recommended Practice for Engine Testing with Low Temperature Charge Air Cooler Systems in a Dynamometer Test Cell, IBR approved for § 89.327.

(3) SAE Paper 770141, 1977, Optimization of a Flame Ionization Detector for Determination of Hydrocarbon in Diluted Automotive Exhausts, Glenn D. Reschke, IBR approved for § 89.319.

14. In appendix A to subpart D of part 89, Table 4 is amended by revising the entries “Flash Point, °C (minimum)” and “Viscosity @ 38°C, Centistokes” to read as follows:

**Appendix A to Subpart D of Part 89--Tables**

\* \* \* \* \*

**Table 4--Federal Test Fuel Specifications**

Item	Procedure (ASTM) <sup>1</sup>	Value (type 2-D)
* * *	* *	* *
Flash Point, °C (minimum) .....	D93-09.....	54
Viscosity @ 38°C, centistokes.....	D445-09.....	2.0-3.2

<sup>1</sup>All ASTM procedures in this table have been incorporated by reference. See §89.6.

\* \* \* \* \*

## **PART 92--[AMENDED]**

15. The authority citation for part 92 continues to read as follows:

**Authority:** 42 U.S.C. 7401-7671q.

16. Revise § 92.5 to read as follows:

### **§ 92.5 Reference materials.**

The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the **Federal Register** and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742. These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030 or go to

*[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).*

In addition, these materials are available from the sources listed below.

(a) *ANSI material*. Copies of these materials may be obtained from the American National Standards Institute, 25 West 43<sup>rd</sup> St., 4<sup>th</sup> Floor, New York, NY 10036, or by calling (212) 642-4900, or at <http://www.ansi.org>.

(1) ANSI B109.1-1992, Diaphragm Type Gas Displacement Meters, IBR approved for § 92.117.

(2) [Reserved]

(b) *ASTM material*. Copies of these materials may be obtained from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428-2959, or by calling (877) 909-ASTM, or at <http://www.astm.org>.

(1) ASTM D86-95, Standard Test Method for Distillation of Petroleum Products, IBR approved for § 92.113.

(2) ASTM D93-09 (Approved December 15, 2009), Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, IBR approved for § 92.113.

(3) ASTM D287-92, Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method), IBR approved for § 92.113.

(4) ASTM D445-09 (Approved July 1, 2009), Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity), IBR approved for § 92.113.

(5) ASTM D613-95, Standard Test Method for Cetane Number of Diesel Fuel Oil, IBR approved for § 92.113.

(6) ASTM D976-91, Standard Test Method for Calculated Cetane Index of Distillate Fuels, IBR approved for § 92.113.

(7) ASTM D1319-95, Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption, IBR approved for § 92.113.

(8) ASTM D1945-91, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 92.113.

(9) ASTM D2622-94, Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry, IBR approved for § 92.113.

(10) ASTM D5186-91, Standard Test Method for Determination of Aromatic Content of Diesel Fuels by Supercritical Fluid Chromatography, IBR approved for § 92.113.

(11) ASTM E29-93a, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications, IBR approved for §§ 92.9, 92.305, 92.509.

(c) *SAE material*. Copies of these materials may be obtained from the Society of Automotive Engineers International, 400 Commonwealth Dr., Warrendale, PA 15096-0001, or by calling (877) 606-7323 (United States and Canada only) or (724) 776-4970 (outside the United States and Canada only), or at <http://www.sae.org>.

(1) SAE Paper 770141, 1977, Optimization of a Flame Ionization Detector for Determination of Hydrocarbon in Diluted Automotive Exhausts, Glenn D. Reschke, IBR approved for § 92.119.

(2) SAE Recommended Practice J244, June 83, Measurement of Intake Air or Exhaust Gas Flow of Diesel Engines, IBR approved for § 92.108.

17. In § 92.113, revise the entries “Flash Point, min., °F and °C” and “Viscosity, centistokes” in Table B113-1 in paragraph (a)(1) to read as follows:

**§ 92.113 Fuel specifications.**

(a) \* \* \*

(1) \* \* \*

**Table B113-1**

Item	ASTM	Type 2-D
* *	* *	*
Flash Point, min.,		
°F .....	D93-09.....	130
°C .....	.....	(54.4)
Viscosity, centistokes.....	D445-09.....	2.0-3.2

\* \* \* \* \*

**PART 94--[AMENDED]**

18. The authority citation for part 94 continues to read as follows:

**Authority:** 42 U.S.C. 7401-7671q.

19. Revise § 94.5 to read as follows:

**§ 94.5 Reference materials.**

The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the **Federal Register** and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742.

These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030 or go to

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

In addition, these materials are available from the sources listed below.

(a) *ASTM material*. Copies of these materials may be obtained from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428-2959, or by calling (877) 909-ASTM, or at <http://www.astm.org>.

(1) ASTM D86-01, Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, IBR approved for § 94.108.

(2) ASTM D93-09 (Approved December 15, 2009), Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, IBR approved for § 94.108.

(3) ASTM D129-00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for § 94.108.

(4) ASTM D287-92 (Reapproved 2000), Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method), IBR approved for § 94.108.

(5) ASTM D445-09 (Approved July 1, 2009), Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity), IBR approved for § 94.108.

(6) ASTM D613-01, Standard Test Method for Cetane Number of Diesel Fuel Oil, IBR approved for § 94.108.

(7) ASTM D1319-02a, Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption, IBR approved for § 94.108.



(8) ASTM D2622-98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry, IBR approved for § 94.108.

(9) ASTM D5186-99, Standard Test Method for Determination of the Aromatic Content and Polynuclear Aromatic Content of Diesel Fuels and Aviation Turbine Fuels by Supercritical Fluid Chromatography, IBR approved for § 94.108.

(10) ASTM E 29-02, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications, IBR approved for § 94.2.

(b) *IMO material*. Copies of these materials may be obtained from the International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom, or by calling +44-(0)020-7735-7611, or at <http://www.imo.org>.

(1) Resolution 2--Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines, 1997, IBR approved for §§ 94.2, 94.11, 94.108, 94.109, 94.204, 94.211, 94.1004.

(2) [Reserved]

(c) *ISO material*. Copies of these materials may be obtained from the International Organization for Standardization, 1, ch.de la Voie-Creuse, CP 56, CH-1211 Geneva 20, Switzerland, or by calling +41-22-749-01-11, or at <http://www.iso.org>.

(1) ISO 8178-1, Reciprocating internal combustion engines—Exhaust emission measurement--Part 1: Test-bed measurement of gaseous and particulate exhaust emissions, 1996, IBR approved for § 94.109.

(2) [Reserved]

20. In § 94.108, revise “Flash Point, °C” and “Viscosity at 38°C, centistokes” in Table B-5 in paragraph (a)(1) to read as follows:

**§ 94.108 Test fuels.**

(a) \* \* \*

(1) \* \* \*

**Table B-5--Federal Test Fuel Specifications**

Item	Procedure <sup>1</sup>	Value
* * *	* *	* *
Flash Point, °C .....	ASTM D93-09 .....	54 minimum
* * *	* *	* *
Viscosity at 38°C, centistokes .....	ASTM D445-09 .....	2.0-3.2

<sup>1</sup>All ASTM standards are incorporated by reference in § 94.5.

\* \* \* \* \*

**PART 761--[AMENDED]**

21. The authority citation for part 761 continues to read as follows:

**Authority:** 15 U.S.C. 2605, 2607, 2611, 2614, and 2616.

22. Revise § 761.19 to read as follows:

**§ 761.19 References.**

The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the **Federal Register** and the material must be available to the public. All approved materials are available for inspection at the OPPT Docket in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566-1744, and the telephone number for the OPPT Docket is (202) 566-0280. These approved materials are also available for

inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

In addition, these materials are available from the sources listed below.

(a) *ASTM materials*. Copies of these materials may be obtained from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428-2959, or by calling (877) 909-ASTM, or at <http://www.astm.org>.

(1) ASTM D93-09 (Approved December 15, 2009), Standard Test Methods for Flash Point by Pensky-Martens Closed Tester, IBR approved for §§ 761.71, 761.75.

(2) ASTM D129-64 (Reapproved 1978), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for § 761.71.

(3) ASTM D240-87, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuel by Bomb Calorimeter, IBR approved for § 761.71.

(4) ASTM D482-87, Standard Test Method for Ash from Petroleum Products, IBR approved for § 761.71.

(5) ASTM D524-88, Standard Test Method for Ramsbottom Carbon Residue of Petroleum Products, IBR approved for § 761.71.

(6) ASTM D808-87, Standard Test Method for Chlorine in New and Used Petroleum Products (Bomb Method), IBR approved for § 761.71.

(7) ASTM D923-86, Standard Test Method for Sampling Electrical Insulating Liquids, IBR approved for § 761.60.

(8) ASTM D923-89, Standard Methods of Sampling Electrical Insulating Liquids, IBR approved for § 761.60.

(9) ASTM D1266-87, Standard Test Method for Sulfur in Petroleum Products

(Lamp Method), IBR approved for § 761.71.

(10) ASTM D1796-83 (Reapproved 1990), Standard Test Method for Water and Sediment in Fuel Oils by the Centrifuge Method (Laboratory Procedure), IBR approved for § 761.71.

(11) ASTM D2158-89, Standard Test Method for Residues in Liquified Petroleum (LP) Gases, IBR approved for § 761.71.

(12) ASTM D2709-88, Standard Test Method for Water and Sediment in Distillate Fuels by Centrifuge, IBR approved for § 761.71.

(13) ASTM D2784-89, Standard Test Method for Sulfur in Liquified Petroleum Gases (Oxy-hydrogen Burner or Lamp), IBR approved for § 761.71.

(14) ASTM D3178-84, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coke and Coal, IBR approved for § 761.71.

(15) ASTM D3278-89, Standard Test Methods for Flash Point of Liquids by Setaflash Closed-Cup Apparatus, IBR approved for § 761.75.

(16) ASTM E258-67 (Reapproved 1987), Standard Test Method for Total Nitrogen Inorganic Material by Modified KJELDAHL Method, IBR approved for § 761.71.

(b) [Reserved]

23. In § 761.71, revise paragraph (b)(2)(vi) to read as follows:

**§ 761.71 High efficiency boilers.**

\* \* \* \* \*

(b) \* \* \*

(2) \* \* \*

(vi) The concentration of PCBs and of any other chlorinated hydrocarbon in the waste and the results of analyses using the ASTM International methods as follows:

Carbon and hydrogen content using ASTM D3178-84, nitrogen content using ASTM E258-67 (Reapproved 1987), sulfur content using ASTM D2784-89, ASTM D1266-87, or ASTM D129-64 (Reapproved 1978), chlorine content using ASTM D808-87, water and sediment content using either ASTM D2709-88 or ASTM D1796-83 (Reapproved 1990), ash content using ASTM D482-87, calorific value using ASTM D240-87, carbon residue using either ASTM D2158-89 or ASTM D524-88, and flash point using ASTM D93-09 (all standards incorporated by reference in § 761.19).

\* \* \* \* \*

24. In § 761.75, revise paragraph (b)(8)(iii) to read as follows:

**§ 761.75 Chemical waste landfills.**

\* \* \* \* \*

(b) \* \* \*

(8) \* \* \*

(iii) Ignitable wastes shall not be disposed of in chemical waste landfills. Liquid ignitable wastes are wastes that have a flash point less than 60 °C (140 °F) as determined by the following method or an equivalent method: Flash point of liquids shall be determined by a Pensky-Martens Closed Cup Tester, using the protocol specified in ASTM D93-09, or the Setaflash Closed Tester using the protocol specified in ASTM D3278-89 (all standards incorporated by reference in § 761.19).

\* \* \* \* \*

**PART 1065--[AMENDED]**

25. The authority citation for part 1065 continues to read as follows:

**Authority:** 42 U.S.C. 7401-7671q.

26. In § 1065.703, revise the entries “Flashpoint, min.” and “Kinematic Viscosity” in Table 1 of §1065.703 to read as follows:

**§ 1065.703 Distillate diesel fuel.**

\* \* \* \* \*

**Table 1 of § 1065.703--Test Fuel Specifications for Distillate Diesel Fuel**

Item	Units	Ultra low sulfur	Low sulfur	High sulfur	Reference procedure <sup>1</sup>
* * *	*	*	*	*	*
Flash Point, min. ....	°C .....	54	54	54	ASTM D93-09
Kinematic Viscosity ...	cSt.....	2.0-3.2	2.0-3.2	2.0-3.2	ASTM D445-09

<sup>1</sup>ASTM procedures are incorporated by reference in §1065.1010. See §1065.701(d) for other allowed procedures.

27. Revise §1065.1010 to read as follows:

**§ 1065.1010 Reference materials.**

The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the **Federal Register** and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading

Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742.

These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030 or go to

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

In addition, these materials are available from the sources listed below.

(a) *ASTM materials*. Copies of these materials may be obtained from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428-2959, or by calling (877) 909-ASTM, or at <http://www.astm.org>.

(1) ASTM D86-07a, Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, IBR approved for §§1065.703, 1065.710.

(2) ASTM D93-09 (Approved December 15, 2009), Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, IBR approved for §1065.703.

(3) ASTM D445-09 (Approved July 1, 2009), Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity), IBR approved for §1065.703.

(4) ASTM D613-05, Standard Test Method for Cetane Number of Diesel Fuel Oil, IBR approved for §1065.703.

(5) ASTM D910-07, Standard Specification for Aviation Gasolines, IBR approved for §1065.701.

(6) ASTM D975-07b, Standard Specification for Diesel Fuel Oils, IBR approved for §1065.701.

(7) ASTM D1267-02 (Reapproved 2007), Standard Test Method for Gage Vapor Pressure of Liquefied Petroleum (LP) Gases (LP-Gas Method), IBR approved for

§1065.720.

(8) ASTM D1319-03, Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption, IBR approved for §1065.710.

(9) ASTM D1655-07e01, Standard Specification for Aviation Turbine Fuels, IBR approved for §1065.701.

(10) ASTM D1837-02a (Reapproved 2007), Standard Test Method for Volatility of Liquefied Petroleum (LP) Gases, IBR approved for §1065.720.

(11) ASTM D1838-07, Standard Test Method for Copper Strip Corrosion by Liquefied Petroleum (LP) Gases, IBR approved for §1065.720.

(12) ASTM D1945-03, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §1065.715.

(13) ASTM D2158-05, Standard Test Method for Residues in Liquefied Petroleum (LP) Gases, IBR approved for §1065.720.

(14) ASTM D2163-05, Standard Test Method for Analysis of Liquefied Petroleum (LP) Gases and Propene Concentrates by Gas Chromatography, IBR approved for §1065.720.

(15) ASTM D2598-02 (Reapproved 2007), Standard Practice for Calculation of Certain Physical Properties of Liquefied Petroleum (LP) Gases from Compositional Analysis, IBR approved for § 1065.720.

(16) ASTM D2622-07, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry, IBR approved for §§1065.703, 1065.710.

(17) ASTM D2713-91 (Reapproved 2001), Standard Test Method for Dryness of



Propane (Valve Freeze Method), IBR approved for §1065.720.

(18) ASTM D2784-06, Standard Test Method for Sulfur in Liquefied Petroleum Gases (Oxy-Hydrogen Burner or Lamp), IBR approved for §1065.720.

(19) ASTM D2880-03, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §1065.701.

(20) ASTM D2986-95a (Reapproved 1999), Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test, IBR approved for §1065.170.

(21) ASTM D3231-07, Standard Test Method for Phosphorus in Gasoline, IBR approved for §1065.710.

(22) ASTM D3237-06e01, Standard Test Method for Lead in Gasoline By Atomic Absorption Spectroscopy, IBR approved for §1065.710.

(23) ASTM D4052-96e01 (Reapproved 2002), Standard Test Method for Density and Relative Density of Liquids by Digital Density Meter, IBR approved for §1065.703.

(24) ASTM D4814-07a, Standard Specification for Automotive Spark-Ignition Engine Fuel, IBR approved for §1065.701.

(25) ASTM D5186-03, Standard Test Method for Determination of the Aromatic Content and Polynuclear Aromatic Content of Diesel Fuels and Aviation Turbine Fuels By Supercritical Fluid Chromatography, IBR approved for §1065.703.

(26) ASTM D5191-07, Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method), IBR approved for §1065.710.

(27) ASTM D5797-07, Standard Specification for Fuel Methanol (M70-M85) for Automotive Spark-Ignition Engines, IBR approved for §1065.701.

(28) ASTM D5798-07, Standard Specification for Fuel Ethanol (Ed75-Ed85) for Automotive Spark-Ignition Engines, IBR approved for §1065.701.

(29) ASTM D6615-06, Standard Specification for Jet B Wide-Cut Aviation Turbine Fuel, IBR approved for §1065.701.

(30) ASTM D6751-07b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, IBR approved for §1065.701.

(31) ASTM D6985-04a, Standard Specification for Middle Distillate Fuel Oil—Military Marine Applications, IBR approved for §1065.701.

(32) ASTM F1471-93 (Reapproved 2001), Standard Test Method for Air Cleaning Performance of a High-Efficiency Particulate Air Filter System, IBR approved for §1065.1001.

(b) *California Air Resources Board material.* Copies of these materials may be obtained from the California Air Resources Board, Haagen-Smit Laboratory, 9528 Telstar Ave., El Monte, CA 91731-2908, or by calling (800) 242-4450.

(1) California Non-Methane Organic Gas Test Procedures, Amended July 30, 2002, Mobile Source Division, California Air Resources Board, IBR approved for §1065.805.

(2) [Reserved]

(c) *Institute of Petroleum material.* Copies of these materials may be obtained from the Energy Institute, 61 New Cavendish St., London, W1G 7AR, UK, or by calling +44-(0)20- 7467-7100, or at <http://www.energyinst.org>.

(1) IP-470, 2005, Determination of aluminum, silicon, vanadium, nickel, iron, calcium, zinc, and sodium in residual fuels by atomic absorption spectrometry, IBR

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(2) IP-500, 2003, Determination of the phosphorus content of residual fuels by ultra-violet spectrometry, IBR approved for §1065.705.

(3) IP-501, 2005, Determination of aluminum, silicon, vanadium, nickel, iron, sodium, calcium, zinc and phosphorus in residual fuel oil by ashing, fusion and inductively coupled plasma emission spectrometry, IBR approved for §1065.705.

(d) *ISO material*. Copies of these materials may be obtained from the International Organization for Standardization, 1, ch. de la Voie-Creuse, CP 56, CH-1211 Geneva 20, Switzerland, or by calling +41-22-749-01-11, or at <http://www.iso.org>.

(1) ISO 2719:2002, Determination of flash point--Pensky-Martens closed cup method, IBR approved for §1065.705.

(2) ISO 3016:1994, Petroleum products--Determination of pour point, IBR approved for §1065.705.

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(11) ISO 10478:1994, Petroleum products--Determination of aluminium and silicon in fuel oils--Inductively coupled plasma emission and atomic absorption spectroscopy methods, IBR approved for §1065.705.

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(13) ISO 14596:2007, Petroleum products--Determination of sulfur content--Wavelength-dispersive X-ray fluorescence spectrometry, IBR approved for §1065.705.

(14) ISO 14597:1997, Petroleum products--Determination of vanadium and nickel content--Wavelength-dispersive X-ray fluorescence spectrometry, IBR approved for §1065.705.

(15) ISO 14644-1:1999, Cleanrooms and associated controlled environments, IBR approved for §1065.190.

(e) *NIST material*. Copies of these materials may be obtained from the National Institute of Standards and Technology (NIST) by calling (800) 553-6847 or from the U.S. Government Printing Office (GPO). To purchase a NIST publication you must have the order number. Order numbers are available from the Public Inquiries Unit at (301) 975-

NIST. Mailing address: Public Inquiries Unit, NIST, 100 Bureau Dr., Stop 1070, Gaithersburg, MD 20899-1070. If you have a GPO stock number, you can purchase printed copies of NIST publications from GPO. GPO orders may be: Mailed to the U.S. Government Printing Office, P.O. Box 979050, St. Louis, MO 63197-9000, placed by telephone at (866) 512-1800 (DC Area only: (202) 512-1800), or faxed to (202) 512-2104. More information can also be found at <http://www.nist.gov>.

(1) NIST Special Publication 811, 1995 Edition, Guide for the Use of the International System of Units (SI), Barry N. Taylor, Physics Laboratory, IBR approved for §§1065.20, 1065.1001, 1065.1005.

(2) NIST Technical Note 1297, 1994 Edition, Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results, Barry N. Taylor and Chris E. Kuyatt, IBR approved for §1065.1001.

(f) *SAE material*. Copies of these materials may be obtained from the Society of Automotive Engineers International, 400 Commonwealth Dr., Warrendale, PA 15096-0001, or by calling (724) 776-4841, or at <http://www.sae.org>.

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(2) [Reserved]